What is claimed is:

1. A method of automated defect localization in the testing of semiconductor integrated circuits, comprising the steps of:

testing the integrated circuits to obtain generalized failure data;

inputting the generalized failure data to a circuit analysis tool;

obtaining from the circuit analysis first localized probable defect data;

performing in-line inspection of the integrated circuits to obtain second localized probable defect data; and

correlating the first and second localized probable defect data.

2. The method of Claim 1, wherein the steps of inputting the generalized failure data to a circuit analysis tool and obtaining from the circuit analysis first localized probable defect data are performed ~~substantially~~ continuously using at least one programmed computer.

3. The method of Claim 1, wherein correlating the first and second localized probable defect data comprises producing a visual overlay of the first and second localized probable defect data.

4. The method of Claim 1, wherein the integrated circuits are logic circuits ~~have~~ having built-in self-test capabilities.

5. The method of Claim 1, wherein the generalized failure data is obtained using end-of-line testing of the integrated circuits.

6. The method of Claim 5, wherein the integrated circuits are tested in wafer form.

7. The method of Claim 1, wherein obtaining from the circuit analysis first localized probable defect data comprises:

creating a database against which the logic defect data is processed to obtain physical defect data; and

processing the logical defect data against the database to obtain physical defect data.

8. The method of Claim 7, wherein creating the database comprises translating design information from a first format to a second format.

9. A system for testing semiconductor integrated circuits, comprising:

a circuit analysis tool; and

means for automatically:

applying to the circuit analysis tool generalized failure data;

obtaining from the circuit analysis tool localized probable defect data;

representing the localized probable defect data in a standard format; and

storing the localized probable defect data on a database server accessible to multiple client machines.